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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,549	01/25/2002	Douglas P. Brown	10311	8811
26890	7590	01/21/2005	EXAMINER	
JAMES M. STOVER NCR CORPORATION 1700 SOUTH PATTERSON BLVD, WHQ4 DAYTON, OH 45479			LE, DEBBIE M	
			ART UNIT	PAPER NUMBER
			2167	

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,549

Applicant(s)

BROWN ET AL.

Examiner

DEBBIE M LE

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 34-36 is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicants' arguments filed on 8/23/04. Claims 1-36 are presented for examinations.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 5-12, 16-23, 27-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Subramanian et al (USP 6,718,320 B1).

As per claim 1, Subramanian discloses a method for copying a portion of a multiple database structure comprising:

recursively retrieving object definitions (SchemaSQL definitions) for one or more database objects (views) associated with a query (SQL select statement) to produce an ordered set of object definitions (unite operation), wherein at least one of the database objects is a view and the object definition for the view is qualified with a containing database identifier (database names) (col. 3, lines 2-4, col. 7, lines 43-51, col. 10, lines 12-67, col. 13, lines 44-67, col. 14, lines 1-50); and

generating a copy of the portion of the multiple database structure (generate the restructuring views from a multiple database system) (col. 7, lines 30-40).

As per claim 5, Subramanian teaches

where recursively retrieving object definitions includes retrieving unretrieved object definitions for a set of objects known to be associated with the query (col. 9, lines 16-36);

adding to the set of objects known to be associated with the query those objects contained in the retrieved object definitions that are not already in the set of objects known to be associated with the query (col. 13, lines 1-34, 37-43);

repeating items a and b until no new objects are added to the set of objects known to be associated with the query (col. 13, lines 35-36).

As per claim 6, Subramanian further comprising sending the ordered set of object definitions from a first computer to a second computer (col. 7, lines 19-51).

As per claim 7, Subramanian teaches further comprising changing the order of the ordered set of object definitions (col. 9, lines 4-10).

As per claims 8-9, Subramanian teaches where changing the order of the ordered set of object definitions includes reordering the object definitions so that each object definition is ordered before the definition of any object that references it, where the object definitions are ordered so that each object definition is ordered before the definition of any object that references it (col. 11, lines 25-30).

As per claim 10, Subramanian teaches where recursively retrieving object definitions for one or more database objects includes looking for references to the one or more database objects in a data dictionary (col. 4, lines 1-8, col. 7, lines 49-51).

As per claim 11, Subramanian teaches where the object definition for the view is qualified with the containing database identifier in response to a deviation from a default condition (col. 10, lines 1-11).

Claims 12 and 23 are rejected by the same rationale as state in independent claim 1 arguments.

Claims 16-22 and 27-33 have similar limitations as claims 5-11; therefore, they are rejected under the same subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2-3, 13-14, 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Subramanian et al (USP 6,718,320 B1) in view of Hotti et al (USP Application No. 2002/0169745 A1).

As per claim 2, Subramanian teaches where recursively retrieving object definitions includes recursively identifying objects associated with the query (col. 10, lines 35-50). Subramanian does not explicitly teach categorizing each identified object into a category and retrieving an object definition for each identified object using a tool corresponding to the category with which the identified object is connected. However, Hotti teaches categorizing each identified object into a category and retrieving an object definition for each identified object using a tool corresponding to the category with which the identified object is connected (grouping database objects) (§¶ 0009). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references to implement the step of categorizing

each identified object into a category because each of can act as master to create a replicate database (§ 0009).

As per claim 3, Hotti teaches where the categories include tables, views, join indexes, triggers and macros (§ 0009).

Claims 13-14, 24-25 have similar limitations as claims 2-3; therefore, they are rejected under the same subject matter.

Claims 4, 15 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Subramanian et al (USP 6,718,320 B1) in view of Hotti et al (USP Application No. 2002/0169745 A1) and further applicants admitted prior art (hereafter admitted prior art).

As per claim 4, Subramanian and Hotti do not explicitly teach where the tool is a SHOW VIEW statement if the identified object is categorized as a view; a SHOW TABLE statement if the identified object is categorized as a table; a SHOW JOIN INDEX statement if the identified object is categorized as a join index; a SHOW TRIGGER statement if the identified object is categorized as a trigger; a SHOW MACRO statement if the identified object is categorized as a macro. However, the applicants have admitted prior art (background of the invention, page 2, § 0003). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references to implement the tool show statements because the tool would help programmer/designer to analyze the needs or

requirements from their customers in order to build a large data warehouses without having to know SQL or database table and column names.

Claims 15 and 26 have similar limitations as claim 4; therefore, they are rejected under the same subject matter.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

Claims 34-36 are allowable over the prior art of record because the prior art of record fails to teach or fairly suggest that inputting a show statement that identifies the database view identifier and outputting the definition language with each directly or indirectly referenced database object qualified with its containing database identifier.

Response to Arguments

Applicant's arguments filed 8/23/04 have been fully considered but they are not persuasive.

Applicants argued that Subrmanian does not teach generating a copy of the portion of the multiple database structure using ordered set of object definitions.

In response, the examiner respectfully disagrees. The examiner submits that Subramanian does teach the limitation at column 2, lines 11-12 that "SchemaSQL provides "view definitions". The schema mapping comprises an SQL view definition [see col. 3, lines 3-4, col. 4, lines 20-21]. "The schema mapping and the operators may be employed in restructuring a database relation into a restructuring view of the

database relation [see col. 4, lines 21-23] to generate the restructuring view map table [see col. 3, line 50]. Subramanian further teach at col. 8, lines 11-17 that **“The schema mapping 85 may be in the form of view definitions... The schema mapping 85 may be used in order to generate the restructuring views.** From the above passages, Subramanian teaches the claimed limitation “generating a copy of the portion of the multiple database structure using ordered set of object definitions” as the schema mapping is in the form of view definitions and the schema mapping be used in order to generate the restructuring views.

Conclusion

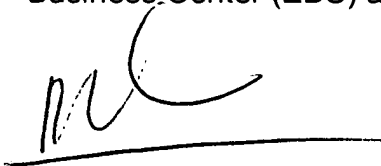
THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEBBIE M LE whose telephone number is (571) 272-4111. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN BREENE can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DEBBIE M LE
Examiner
Art Unit 2167

Debbie Le

Jan. 18, 2005.


CHELA ROBINSON
PATENT EXAMINER